

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number
WO 2005/032691 A1

(51) International Patent Classification⁷: **B01D 35/28**

(21) International Application Number:
PCT/AU2004/001230

(22) International Filing Date:
10 September 2004 (10.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003905443 3 October 2003 (03.10.2003) AU

(71) Applicant (for all designated States except US): **WEATHERFORD AUSTRALIA PTY LIMITED [AU/AU]**;
A.C.N 008 947 395, 17 Truganina Road, Malaga, W.A.
6062 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **DOWSETT, Murray, Frank [AU/AU]**; 43 Fletcher Parade, Bardon, QLD 4065 (AU).

(74) Agent: **F B RICE & CO**; 605 Darling Street, Balmain, NSW 2041 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

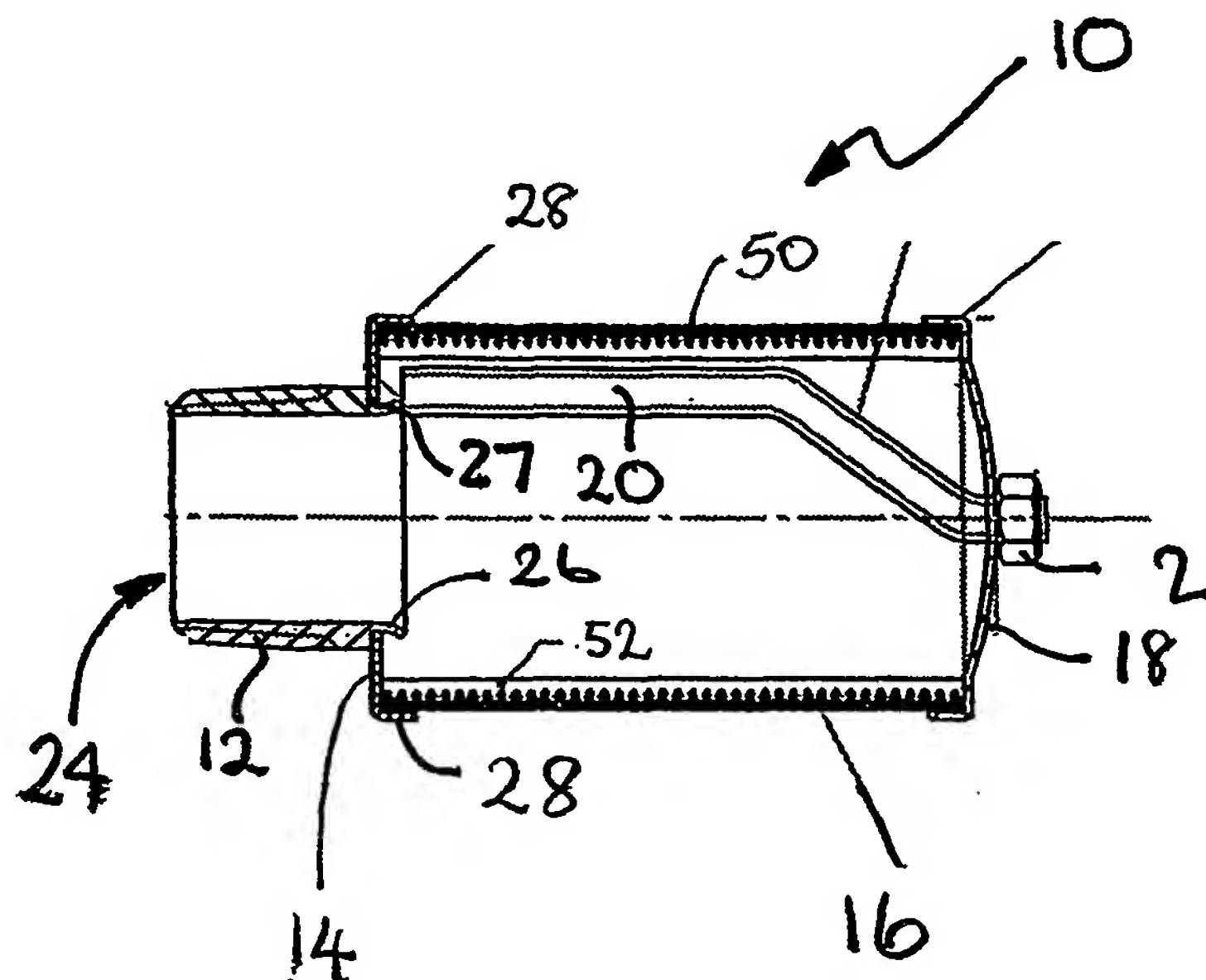
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **IMPROVED SCREEN NOZZLE**



(57) Abstract: A screen nozzle for a media retention screen is disclosed which includes a nipple, a bottom cover, a top cover, and a cylindrical screen element sandwiched between the top and bottom covers. The top cover is secured to the bottom cover by means of a threaded rod extending from either the bottom cover or the nipple through the interior of the screen through an aperture in the top cover with the top cover being retained in place by a nut or the like. The nipple is secured to the bottom cover by swaging and the threaded rod is welded to the bottom cover. Assembling the screen element using an internal threaded rod has two substantial advantages over existing screen nozzles. The first advantage is that there are no external welds which may damage or deform or foul the screen and which are also potential areas of weaknesses which may be subject to corrosion. Secondly the screen element may be replaced without removing the nozzle from the screen plate. This makes repair and replacement of the screen nozzles considerably easier and also cheaper, since the nipple itself does not need to be replaced.